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Post-Remedial Excavation  
Confirmation Sample Report  
Parcel A, Report No. 2

McDonnell Douglas C-6 Facility  
Los Angeles, California

May 1997



**MONTGOMERY WATSON**

**POST-REMEDIATION EXCAVATION  
CONFIRMATION SAMPLE REPORT  
PARCEL A  
REPORT NO. 2**

**McDONNELL DOUGLAS C-6 FACILITY  
LOS ANGELES, CALIFORNIA**

**May 1997**

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## **SECTION 1.0**

### **INTRODUCTION**

In October, 1996, Montgomery Watson (Montgomery) was retained by McDonnell Douglas Realty Company (MDRC) to assist with the redevelopment of Parcel A (the Site) of their C-6 facility located in Los Angeles, California. Figure 1 presents the C-6 facility. Figure 2 delineates the Site. The Site was formerly used to manufacture and store aircraft parts.

#### **1.1 OVERVIEW**

The Site consists of the northernmost quarter of the C-6 facility, encompassing approximately 50 acres. Demolition of many of the following buildings at the Site is underway: Building 29, 33, 34, 36, 37, 41, 43/44, 45, 57, 58, 61, 66-A and 67.

Information gathered during the data compilation and evaluation phase of this project indicated the presence of petroleum products and hazardous substances in the surface and subsurface.

A soil sampling and remedial excavation effort is being conducted in conjunction with the removal of foundations, slabs, and below-ground structures. The purpose of this effort is to assess soil quality and remove soil affected with petroleum hydrocarbons and other chemicals in preparation for redevelopment of the Site. Soil which is determined to be affected with petroleum hydrocarbons and other chemicals is excavated and stockpiled at the Site. Confirmation samples are collected along the walls and floor of each remedial excavation to ensure that affected soil has been removed.

Confirmation sampling activities discussed in this report are from remedial excavation activities conducted at Building 37 only.

#### **1.2 PURPOSE AND OBJECTIVE**

This document presents the results of confirmation sampling conducted in Building 37 excavation areas. Specifically, this document is the second in a series of confirmation sample reports which follows the facility-wide strategy for assessing and screening the analytical data to confirm that the areas, which were contaminated with petroleum hydrocarbons and other chemicals, have been excavated to acceptable levels.

The final residual chemical concentrations in the excavated area must meet cleanup criteria established for the Site and the C-6 facility.

Along with its companion document, *Soil Stockpile Report, Parcel A, Report No. 2* (Montgomery Watson, 1997(d)), this report documents that the Site excavation efforts meet the established cleanup criteria and therefore protect drinking water and the health of future users.

## SECTION 2.0

### BUILDING 37 REMEDIAL EXCAVATIONS

Building 37 housed foundry operations in the south central portion of the building, and large machine presses and lathes throughout the building. Foundry and press machines were contained in 15 large pits (approximately 8 feet deep, 20 feet wide, and 60 feet long). A ground floor room on the east side of the building housed the tooling department where employees would produce parts for the machines throughout the facility. A parts cleaning tank sat in a sump within this room. Two clarifiers were located outside the east wall of the building. A hydraulically-powered elevator was located inside the northeast portion of the building.

A 20 feet by 20 feet grid has been superimposed over the footprint of Building 37 as presented in Figure 3. The location of each remedial excavation discussed in this report is presented in Figure 3. Remedial excavations were recorded using the following nomenclature:

Building No. (B#) - Remedial Excavation (RE) - Chronological Number (#)  
e.g., B37-RE-4

Pertinent information related to the Building 37 remedial excavations and the stockpiled soils discussed in this report is presented below.

Excavation/Stockpile(s)	Approximate Volume	Date of Excavation	Stockpile Location(s)
B37-RE-2/B	36 cu yds	8 Apr 97	East of Building 29
B37-RE-2/C	280 cu yds	8,9 Apr 97	East of Building 61
B37-RE-4/U — AL	3895 cu yds total	31 Mar 97 — 24 Apr 97	Within and adjacent to the footprint of Building 61.

#### 2.1 SOIL SAMPLING AND EXCAVATING

Grid sampling and hot spot sampling has been employed at Building 37 to identify affected soil and to evaluate the need to remove it through remedial excavation. Detailed procedures for these activities are outlined in the *Sampling and Analysis Plan for Demolition Activities at the Douglas Aircraft Company C-6 Facility* prepared by Integrated Environmental Services, Inc. and previously submitted to the Regional Water Quality Control Board

(RWQCB). The procedures used to assess soil quality and determine if remedial excavation was necessary can be summarized as follows:

Grid Sampling: The systematic collection of soil samples was performed at predetermined, regular intervals of a grid placed over the footprint of Building 37. A 20 feet by 20 feet grid was employed. A photoionization detector (PID) was used to measure headspace organic vapor concentrations in the freshly exposed soil at each grid node. Soil samples were collected for analysis where at least one of the following conditions existed: (1) the headspace VOC reading exceeded 5 ppm, (2) areas where staining of the soil was visible, or (3) areas where odors were noticeable. Generally, grid samples have been analyzed according to the analytical schedule presented in Table 1.

Hot Spot Sampling: Hot spot sampling was conducted at pre-determined locations where former items of concern were located (e.g., pits, sumps), and at other locations where demolition activities revealed soil which may have been affected by petroleum hydrocarbons or other chemicals of concern. Hot spot samples were collected for chemical analysis from a location where at least one of the following conditions existed: (1) the headspace VOC reading exceeded 5 ppm, (2) areas where staining of the soil was visible, or (3) areas where odors were noticeable. Generally, hot spot samples have been analyzed according to the analytical schedule presented in Table 1.

Remedial excavation to remove affected soil was conducted when one of the following conditions was discovered: (1) elevated PID readings, (2) visible staining, or (3) noticeable odors. A conservative approach was employed such that soil which exhibited any of these characteristics was excavated and stockpiled.

Remedial excavations were performed using heavy equipment (excavators, front-end loaders) associated with the building demolition effort. Air monitoring in accordance with South Coast Air Quality Management District Rule 1166 was conducted.

The maximum depth of any excavation was approximately 10 feet below grade. Excavated soil was segregated based on the location from where it was removed. Soil stockpiles were placed on asphalt or plastic sheeting, and covered with plastic sheeting to protect the soil from the elements. A sample of the excavated soil (stockpile sample) was collected and analyzed for approximately each 250 cubic yards of material.

Stockpile sampling: Stockpile samples were collected at a frequency of approximately one sample per 250 cubic yards of soil removed. Samples from the stockpiled soil were collected by using a shovel to cut vertically into the side of a stockpile at each sample location to expose "fresh" soil; samples were then collected from the exposed vertical wall.

Generally, stockpile samples have been analyzed according to the analytical schedule presented in Table 1.



## **2.2 CONFIRMATION SAMPLING**

Confirmation sampling was conducted to ensure that affected soil had been removed from each excavation. Confirmation sampling was conducted at a frequency of at least one sample location each 20 feet along the walls and floor of each excavation. Soil removal continued at a particular location until the following conditions were met: 1) the headspace VOC reading in freshly exposed soil was less than or equal to 5 ppm, (2) soil staining was not visible, and (3) odors were not noticeable. A confirmation sample was collected when these conditions were met.

Confirmation soil samples were collected by first exposing "fresh" soil beneath the surface of a wall and floor of an excavation using a stainless steel utensil or similar device. Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve.

Building No. (B#) - Grab Sample (GS) - Chronological Number (#) - Sample Depth (feet)  
e.g., B37-GS-42-3'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Generally, confirmation samples have been analyzed according to the analytical schedule presented in Table 1.

## **2.3 IN SITU SOIL QUALITY**

### **2.3.1 B37-RE-2 Remedial Excavation**

Initial soil removal at remedial excavation B37-RE-2 was conducted on February 28, 1997 as previously reported by Montgomery Watson (1997(b)).

Additional soil removal at remedial excavation B37-RE-2 was completed on April 9, 1997. Approximately 36 cubic yards of stockpiled soil associated with this additional excavation was removed with an excavator, transported and stockpiled east of Building 29. Additionally, approximately 280 cubic yards of soil was stockpiled east of Building 61.

Two confirmation samples were collected at locations presented in Figure 4. The analytical data for these samples are summarized in Table 2. A complete set of laboratory analytical reports is presented in Appendix A-1.

### **2.3.2 B37-RE-4 Remedial Excavation**

Initial soil removal at remedial excavation B37-RE-4 was conducted from March 3, 1997 through March 31, 1997 as previously reported by Montgomery Watson (1997(b)); however, additional stockpile samples associated with this remedial excavation were collected as late as April 17, 1997. The limits of remedial excavation B37-RE-4 presented in Figure 3 and Figure 5 have been amended from those presented in the *Post-Remedial Excavation Confirmation Sample Report No. 1* (Montgomery Watson, 1997(b)) to more accurately reflect the limits of the initial and additional excavation.

Additional soil removal at remedial excavation B37-RE-4 was conducted on March 31, 1997 through April 24, 1997. Approximately 3895 cubic yards of stockpiled soil associated with this additional excavation was removed with an excavator, transported and stockpiled within and adjacent to the footprint of Building 61.

Thirty-seven confirmation samples were collected at locations presented in Figure 5. The analytical data for these samples are summarized in Table 3. A complete set of laboratory analytical reports is presented in Appendix A-2.

## SECTION 3.0

### DATA SUMMARY AND CONCLUSIONS

This section summarizes the confirmation sampling data from each remedial excavation discussed in this report and concludes whether all affected soil has been removed, or if additional excavation of affected soil is warranted to be protective of drinking water and human health.

#### 3.1 SOIL SCREENING METHODOLOGY

The soil screening criteria have been developed to satisfy two primary objectives: (1) residual concentrations in soil must be below levels projected to impact underlying drinking water sources, and (2) residual concentrations must be below levels projected to potentially impact human health under future construction and commercial/industrial activities at the Site.

In accordance with these objectives, individual screening criteria were developed for both drinking water and human health protection. The development of each of these screening criteria is discussed below followed by a summary of how these values will be implemented in the evaluation of whether soil which remains at each remedial excavation meets the soil screening criteria.

Chemicals of concern at the Site can be summarized as follows:

- Petroleum hydrocarbons
- VOCs
- SVOCs
- PCBs
- Metals

#### Drinking Water

The generalized hydrostratigraphic succession at the Site is as follows (Kennedy/Jenks, 1996(b); Dames & Moore, 1993; Department of Water Resources, 1961):

##### SURFACE

Bellflower Aquitard  
Gage Aquifer  
El Segundo Aquitard  
Lynwood Aquifer

Depth to groundwater at the Site is approximately 65 feet. Hydrostratigraphic information from voluminous data collected at the neighboring Del Amo and Montrose Chemical Superfund Sites can be correlated with subsurface information collected at the Site. Hydrostratigraphic correlations suggest that the shallowest groundwater at the Site occurs in the Bellflower Aquitard, which is not recognized as a drinking water source in the region (Dames & Moore, 1993).

Although the depth to the top of the Gage Aquifer should vary from approximately 120 to 150 feet (from west to east) across the Site, the Gage Aquifer is not utilized as a source of drinking water in the region (Dames & Moore, 1993). Consequently, the shallowest drinking water resource in the region would therefore be the Lynwood Aquifer, projected to occur at the depths of approximately 210 to 240 feet (from west to east) across the Site.

Based on the depth to the first drinking water source, the following permissible concentrations have been approved by the RWQCB:

Analytes	Permissible Level
TRPH	
C4 - C12	2000 mg/kg
C13 - C22	10,000 mg/kg
C22+	50,000 mg/kg
Metals	TTLC and 10 times STLC

Note:

A waste extraction test is performed on samples with concentrations greater than 10 times STLC but less than TTLC, per CCR Title 22.

### **Human Health**

Site-specific health-based screening criteria (HBSC) were developed by Integrated Environmental Services, Inc. using standard United States Environmental Protection Agency (USEPA) and California Environmental Protection Agency (Cal/EPA) methodologies. HBSC values were derived assuming future commercial industrial land use with an interim construction phase. Each HBSC will be used as a predictor of the risk posed by individual VOC, SVOC, PCB and metal contaminants in soil. The additive effects of multiple contaminants have been accounted for by setting target risk levels at  $1 \times 10^{-6}$  for carcinogens and 0.2 for toxicants. The final cumulative risks for all contaminants will be addressed in the post-remedial risk assessment. Table 4 summarizes the HBSCs to be used at the Site. Appendix B provides a more detailed discussion of the methodologies used to derive these values.

## **Evaluation Process**

All confirmation soil data at the Site will undergo the soil screening evaluation process depicted in Figure 6. This evaluation process incorporates both drinking water and human health based criteria. Additional soil excavation and/or treatment will be required at locations where confirmation sample data fail any portion of this test.

### **3.2 REMEDIAL EXCAVATION EVALUATIONS**

#### **3.2.1 B37-RE-2 Remedial Excavation**

Confirmation sample data are presented in Table 2 and can be summarized as follows:

Petroleum Hydrocarbons: The maximum concentration of TRPH in a confirmation sample collected from this additional remedial excavation was 23 mg/kg (sample B37-GS-133-6'). This concentration is below the permissible limits for petroleum hydrocarbons.

VOCs: VOCs were not detected.

SVOCs: SVOCs were not detected.

PCBs: Confirmation samples for the additional soil removal activities at B37-RE-2 were not analyzed for PCBs. However, one confirmation sample from the initial B37-RE-2 remedial excavation was analyzed for PCBs and none were detected (Montgomery Watson, 1997(b)).

Metals: All concentrations were below their respective TTLC, 10 times STLC, and HBSC values.

Conclusion: The data indicate that the residual soils in the additional B37-RE-2 excavation are protective of drinking water and human health. Approval to backfill this excavation is requested.

#### **3.2.2 B37-RE-4 Remedial Excavation**

Confirmation sample data are presented in Table 3 and can be summarized as follows:

Petroleum hydrocarbons: The maximum concentration of TRPH in a confirmation sample collected from this additional remedial excavation was 12 mg/kg (sample B37-GS-145-6'). This concentration is below the permissible limit for petroleum hydrocarbons.

VOCs: VOCs were not detected.

SVOCs: Bis(2-ethylhexyl)phthalate was detected in sample B37-GS-137-6' in concentration of 0.420 mg/kg. This concentration is below the 2100 mg/kg bis(2-ethylhexyl)phthalate HBSC.

PCBs: Two confirmation samples were analyzed for PCBs. PCBs were not detected in one sample (B37-GS-145A-6'). The laboratory reported "trace" concentration in the other sample (B37-GS-137A-6').

Metals: All concentrations were below their respective TTLC, 10 times STLC, and HBSC values.

Conclusion: The data indicate that the residual soils in the additional B37-RE-4 excavation are protective of drinking water and human health. Approval to backfill this excavation is requested.

## SECTION 4.0

### BIBLIOGRAPHY

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Montgomery Watson, Soil Stockpile Report, Parcel A, Report No. 1, McDonnell Douglas C-6 Facility, Los Angeles, California, 1997(c).

Montgomery Watson, Soil Stockpile Report, Parcel A, Report No. 2, McDonnell Douglas C-6 Facility, Los Angeles, California, 1997(d).

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## Figures

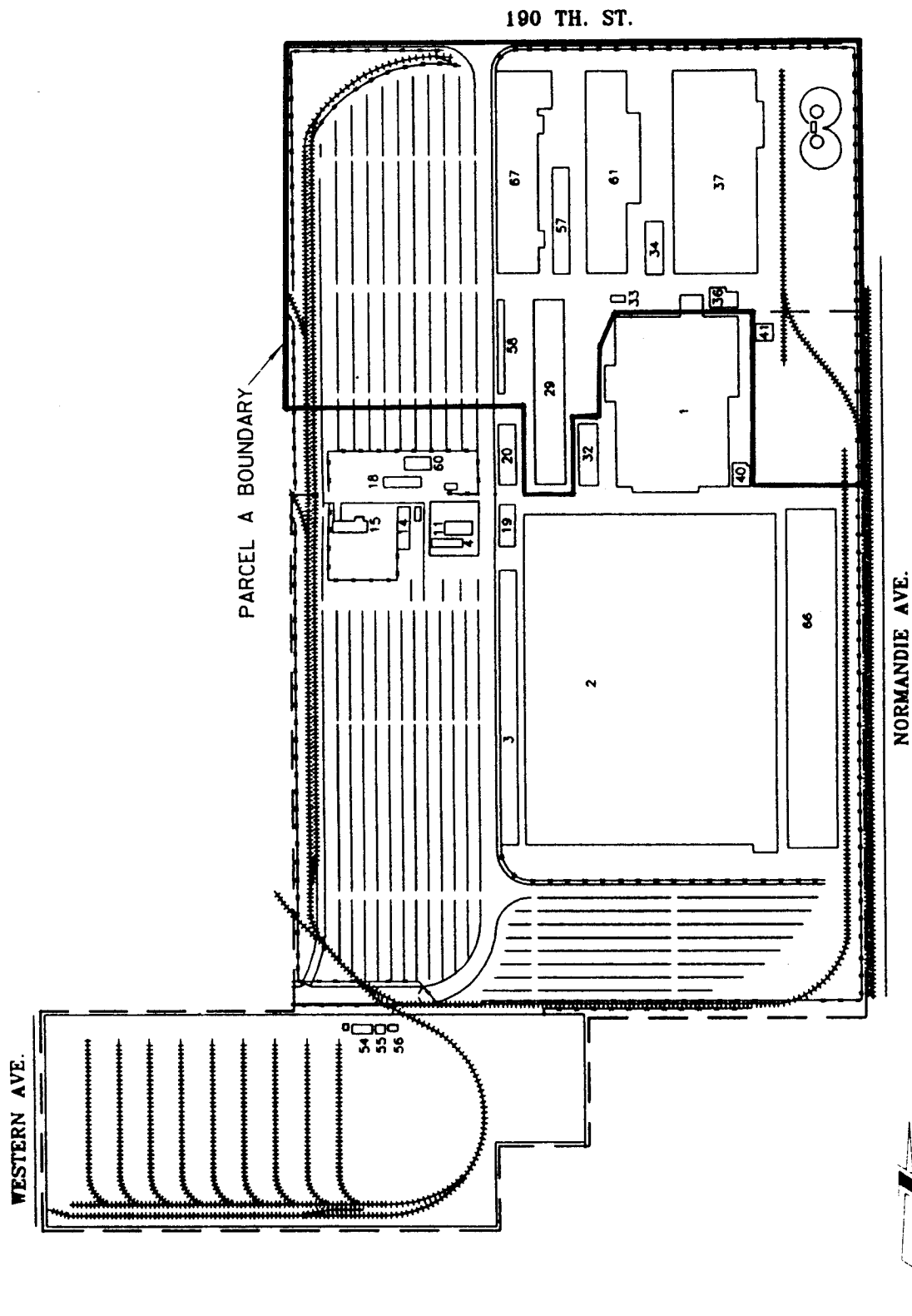
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Figures



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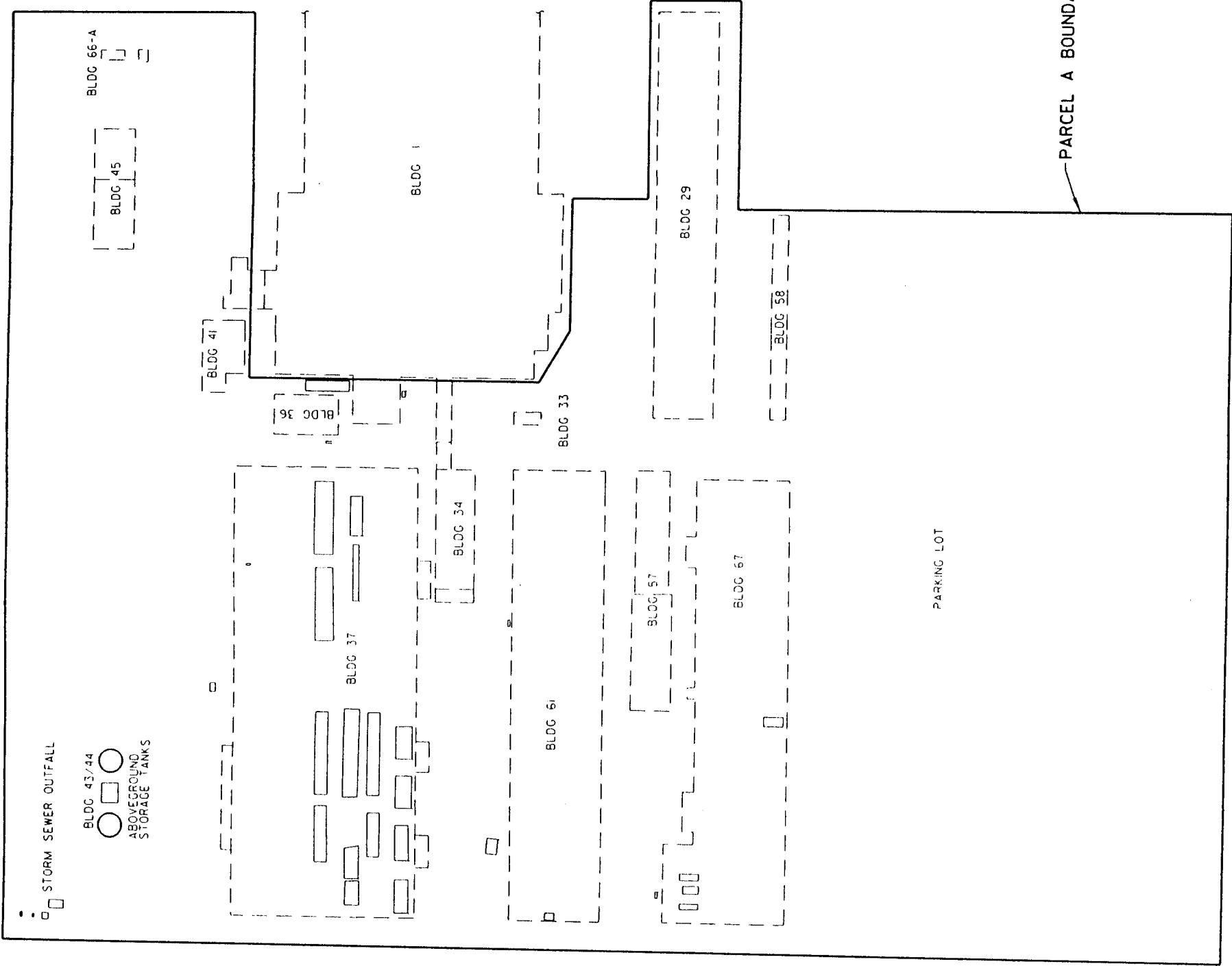
Base map developed from Facility Layout and Subject Property Map by Kennedy/Jenks Consultants, May 1996.



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C-6 FACILITY MAP

FIG. I

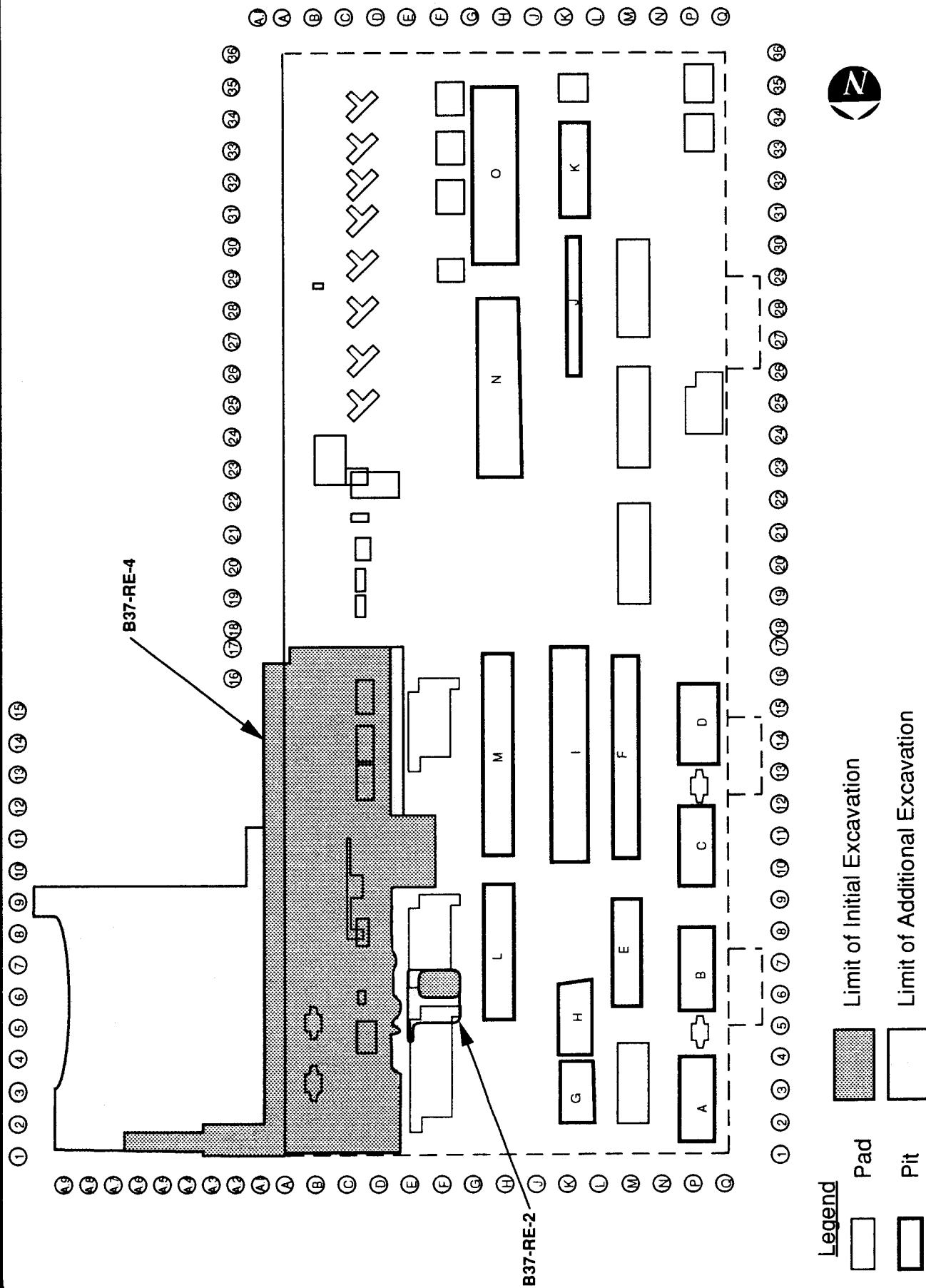


PARCEL A BOUNDARY

PARKING LOT

BASE MAP DEVELOPED FROM TAIT & ASSOCIATES INC.  
SURVEY DRAWING DATED 10/22/96.

REV. DATE		BY	DESCRIPTION
SCALE:		AS SHOWN	
DESIGNED		N. CHRAKIAN	
DRAWN		S. REINERS	
CHECKED			
SUBMITTED		PROJECT ENGINEER	R. C. E. NO. DATE
		RECOMMENDED	
		MONTGOMERY WATSON	R. C. E. NO. DATE
MONTGOMERY WATSON Pasadena, California			
APPROVED		DATE	
APPROVED		DATE	
MCDONNELL DOUGLAS C-6 FACILITY		PARCEL A	
SHEET		FIG. 2	
		OF 4 SHEETS	



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C-6 FACILITY - BUILDING 37

FIGURE 3

BUILDING 37 GRID OUTLINE AND LOCATIONS OF REMEDIAL EXCAVATIONS

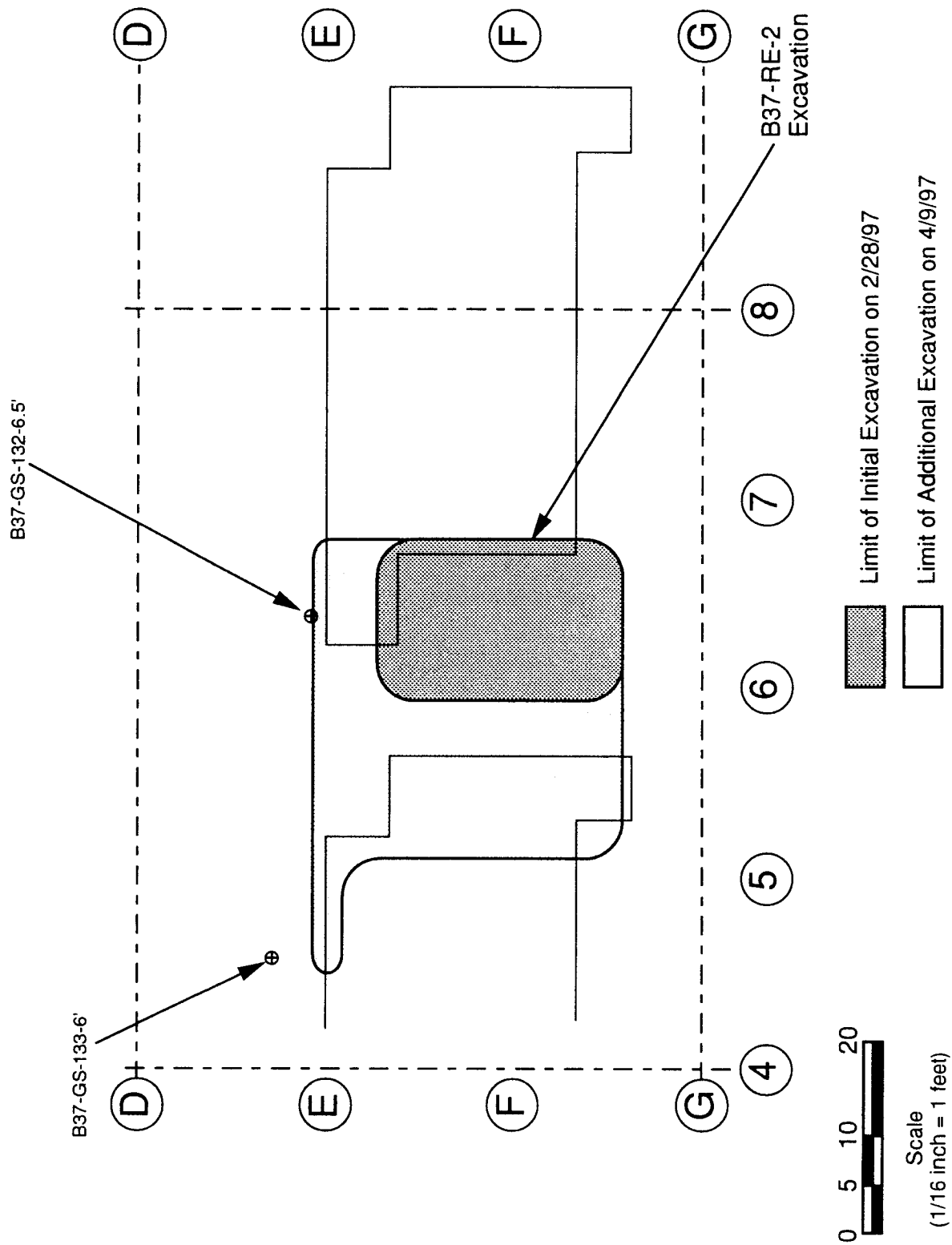
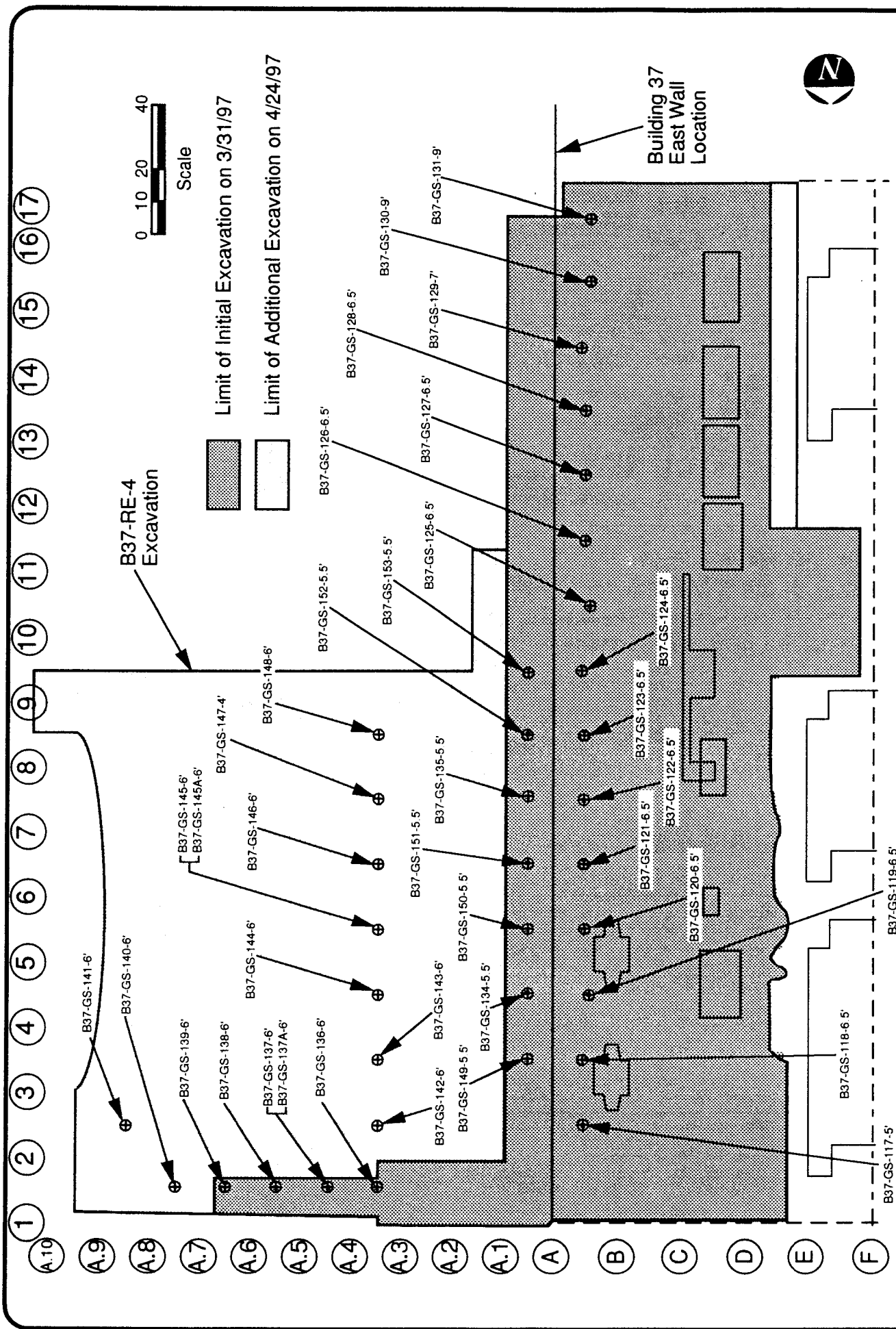


FIGURE 4

Remedial Excavation B37-RE-2 Confirmation Sample Locations

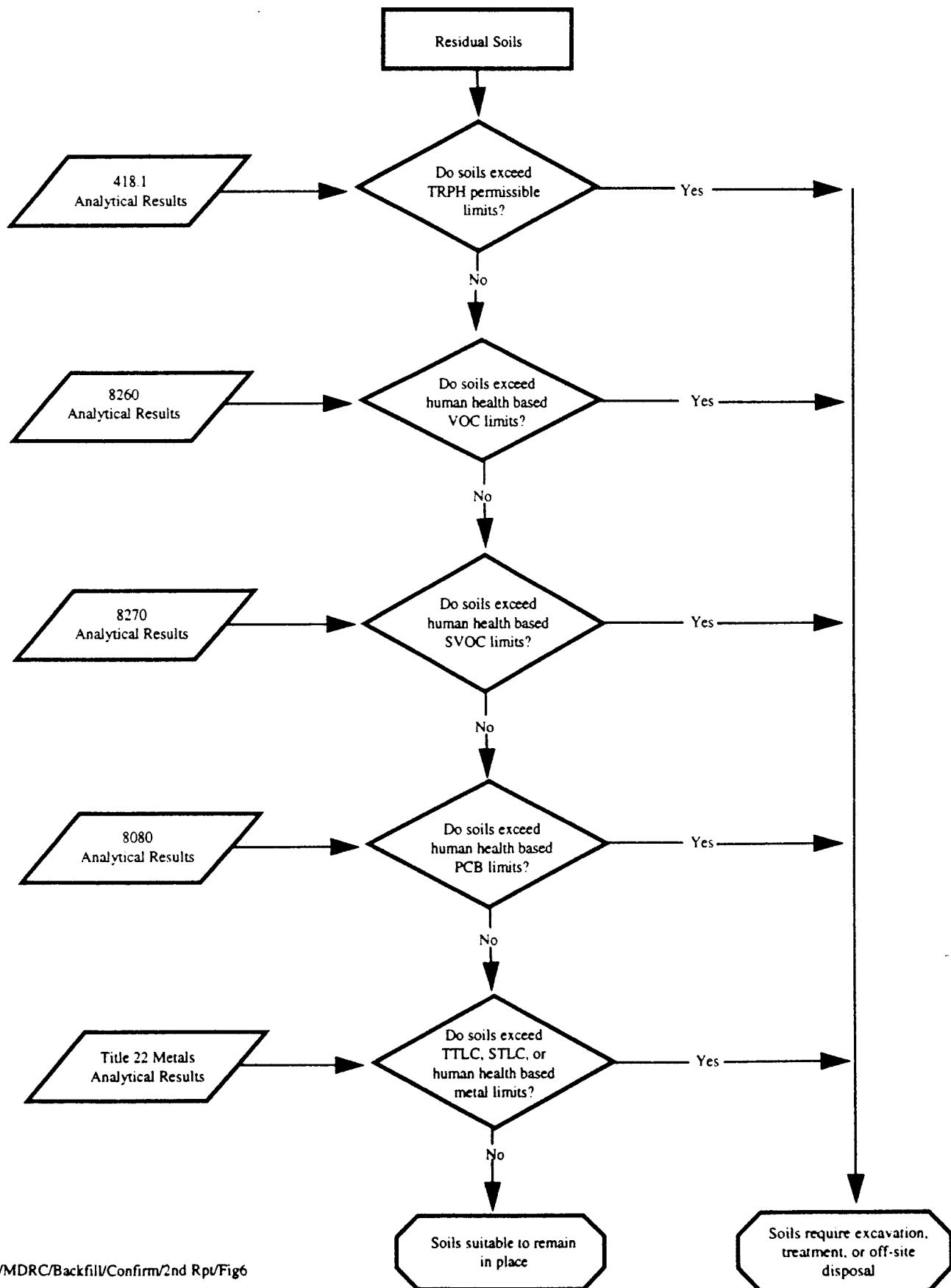


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**FIGURE 5**

**Remedial Excavation B37-RE-4 Confirmation Sample Locations**

**FIGURE 6**  
**Soil Screening Evaluation Process**



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## Tables

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**TABLE 1**  
**Summary of Soil Sample Analytical Methods**

Sample Type	EPA Method	Analyte
Grid Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs
	8270	SVOCs
Hot Spot Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs (b)
	8270	SVOCs (b)
Stockpile Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs
	8270	SVOCs
	8080	PCBs (c)
Confirmation Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs (d)
	8270	SVOCs (d)
	8080	PCBs (e)

**Notes:**

TRPH Total Recoverable Petroleum Hydrocarbons

VOCs Volatile Organic Compounds

SVOCs Semi-volatile Organic Compounds.

PCBs Polychlorinated Biphenyls

(a) Samples exhibiting TRPH concentration greater than 10,000 mg/kg were submitted for carbon chain analysis.

(b) Only the sample with highest TRPH concentration from a hot spot area was analyzed for VOCs and SVOCs.

(c) One sample per remedial excavation.

(d) The number of confirmation samples analyzed for VOCs and SVOCs is approximately equal to the number of stockpile samples analyzed for VOCs and SVOCs. Confirmation samples are selected for analysis of VOCs and SVOCs based on highest TRPH concentration, and location of evenly spaced confirmation sample locations.

(e) Generally, one sample per each remedial excavation, or following the removal of each 2500 cubic yards of soil, whichever is less.



**TABLE 2**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-2 Confirmation Samples**

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth	
		B37-GS-132-6.5' 4/8/97 E-6.5 @ 6.5' bgs*	B37-GS-133-6' 4/8/97 D/E-4.5 @ 6.0' bgs*
TRPH (mg/kg)	418.1	19	23
<b>Regulatory Levels</b>			
<b>Title 22 Metals (mg/kg)</b>		<b>TTL</b>	<b>10X STL</b>
Antimony	6010	<5.0	<5.0
Arsenic	6010	<1.0	<1.0
Barium	6010	200	90
Beryllium	6010	<0.1	<0.1
Cadmium	6010	<0.1	<0.1
Chromium (VI)	7196	<0.5	<0.5
Chromium (total)	6010	33	36
Cobalt	6010	5.3	5.3
Copper	6010	17	13
Lead (total)	6010	<1.0	<1.0
Mercury	7471	<0.01	<0.01
Molybdenum	6010	<0.5	<0.5
Nickel	6010	8.9	10
Selenium	6010	<1.0	<1.0
Silver	6010	<0.1	<0.1
Thallium	6010	<5.0	<5.0
Vanadium	6010	33	34
Zinc	6010	53	62
VOCs (mg/kg)	8260	--	ND
SVOCs (mg/kg)	8270	--	ND
Carbon Chain Range (mg/kg)	sim. dist.	--	--
PCBs (mg/kg)	8080	--	--

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

-- = not analyzed

sim. dist. = simulated distillation

VOCs = Volatile Organic Compounds

ND = not detected

SVOCs = Semi-volatile Organic Compounds

TRPH = Total Recoverable Petroleum Hydrocarbons

TTL = California Total Threshold Limit Concentration

10X STL = Ten Times the California Soluble Threshold Limit Concentration

bgs = below ground surface

PCBs = Polychlorinated Biphenyls

\* Refer to Figure 4 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
**Page 1 of 8**

Sample Number, Collection Date, Grid Location and Depth									
B37-GS-117-5' 4/1/97		B37-GS-118-6.5' 4/1/97		B37-GS-119-6.5' 4/1/97		B37-GS-120-6.5' 4/1/97		B37-GS-121-6.5' 4/1/97	
A/B-2.5 @ 5.0' bgs*		A/B-3.5 @ 6.5' bgs*		A/B-4.5 @ 6.5' bgs*		A/B-5.5 @ 6.5' bgs*		A/B-6.5 @ 6.5' bgs*	
Analyte	EPA Method	418.1	<8.0	<8.0	<8.0	<8.0	<8.0	Regulatory Levels TTL (mg/kg)	10X STLC (mg/L)
TRPH (mg/kg)									
Title 22 Metals (mg/kg)									
Antimony	6010	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	500	150
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	500	50
Barium	6010	170	120	110	100	46	46	10,000	1,000
Beryllium	6010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	7.5	7.5
Cadmium	6010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	100	10
Chromium (VI)	7196	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	500	50
Chromium (total)	6010	31	32	32	18	11	11	2,500	50
Cobalt	6010	10	12	13	6.8	4.4	4.4	8,000	800
Copper	6010	16	21	21	12	8.2	8.2	2,500	250
Lead (total)	6010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1,000	50
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20	2
Molybdenum	6010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3,500	3,500
Nickel	6010	9.8	11	9.4	4.5	3.2	3.2	2,000	200
Selenium	6010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100	10
Silver	6010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	500	50
Thallium	6010	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	700	70
Vanadium	6010	29	37	30	29	12	12	2,400	240
Zinc	6010	65	68	64	29	29	21	5,000	2,500
VOCs (mg/kg)									
SVOCs (1) (mg/kg)									
bis (2-Ethylhexyl)Phthalate									
8270		<0.100		<0.100		<0.100		<0.100	
Carbon Chain Range (mg/kg)									
PCBs (1) (mg/kg)									
PCB-1260									
8080		--		--		--		--	
(1) SVOCs and PCBs not listed were not detected									
TTL = California Total Threshold Limit Concentration									
10X STLC = Ten Times the California Soluble Threshold Limit Concentration									
TRPH = Total Recoverable Petroleum Hydrocarbons									

mg/kg = milligrams per kilogram  
mg/L = milligrams per liter  
-- = not analyzed  
bgs = below ground surface  
ND = not detected

(1) SVOCs and PCBs not listed were not detected  
TTL = California Total Threshold Limit Concentration  
10X STL = Ten Times the California Soluble Threshold Limit Concentration  
TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
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Analyte		Sample Number, Collection Date, Grid Location and Depth						Regulatory Levels	
		B37-GS-123-6.5' 4/1/97 A/B-7.5 @ 6.5' bgs*	B37-GS-124-6.5' 4/1/97 A/B-9.5 @ 6.5' bgs*	B37-GS-125-6.5' 4/1/97 A/B-10.5 @ 6.5' bgs*	B37-GS-126-6.5' 4/1/97 A/B-11.5 @ 6.5' bgs*				
TRPH (mg/kg)		418.1	<8.0	<8.0	<8.0	<8.0	<8.0	TTLc (mg/kg)	10X STLc (mg/L)
Title 22 Metals (mg/kg)									
Antimony		6010	<5.0	<5.0	<5.0	<5.0	<5.0	500	150
Arsenic		6010	<1.0	<1.0	<1.0	<1.0	<1.0	500	50
Barium		6010	130	84	98	120	110	10,000	1,000
Beryllium		6010	<0.1	<0.1	<0.1	<0.1	<0.1	7.5	7.5
Cadmium		6010	<0.1	<0.1	<0.1	<0.1	<0.1	100	10
Chromium (VI)		7196	<0.5	<0.5	<0.5	<0.5	<0.5	500	50
Chromium (total)		6010	25	18	22	27	41	2,500	50
Cobalt		6010	8.1	6.4	5.4	19	11	8,000	800
Copper		6010	13	11	16	24	25	2,500	250
Lead (total)		6010	<1.0	<1.0	<1.0	<1.0	<1.0	1,000	50
Mercury		7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	2
Molybdenum		6010	<0.5	<0.5	<0.5	<0.5	<0.5	3,500	3,500
Nickel		6010	6.8	6.1	6.5	7.6	14	2,000	200
Selenium		6010	<1.0	<1.0	<1.0	<1.0	<1.0	100	10
Silver		6010	<0.1	<0.1	<0.1	<0.1	<0.1	500	50
Thallium		6010	<5.0	<5.0	<5.0	<5.0	<5.0	700	70
Vanadium		6010	25	22	19	34	40	2,400	240
Zinc		6010	41	26	43	42	69	5,000	2,500
VOCs (mg/kg)		8260	ND	ND	ND	ND	ND		
SVOCs (1) (mg/kg)									
bis (2-Ethylhexyl)Phthalate		8270	<0.100	<0.100	<0.100	<0.100	<0.100		
Carbon Chain Range (mg/kg)		sim. dist.	--	--	--	--	--		
PCBs (1) (mg/kg)									
PCB-1260		8080	--	--	--	--	--		
mp/kg = milligrams per kilogram		sim. dist. = simulated distillation							
mg/L = milligrams per liter		VOCs = Volatile Organic Compounds							
-- = not analyzed		SVOCs = Semi-volatile Organic Compounds							
bgs = below ground surface		PCBs = Polychlorinated biphenyls							
ND = not detected		(1) SVOCs and PCBs not listed were not detected							
		TTLc = California Total Threshold Limit Concentration							
		10X STLc = Ten Times the California Soluble Threshold Limit Concentration							
		TRPH = Total Recoverable Petroleum Hydrocarbons							

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected  
 sim dist. = simulated distillation  
 VOCs = Volatile Organic Compounds  
 SVOCs = Semi-volatile Organic Compounds  
 PCBs = Polychlorinated biphenyls  
 (1) SVOCs and PCBs not listed were not detected  
 TTLc = California Total Threshold Limit Concentration  
 10X STLc = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
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Sample Number, Collection Date, Grid Location and Depth						
B37-GS-127-6.5' 4/1/97 A/B-12.5 @ 6.5' bgs*	B37-GS-128-6.5' 4/1/97 A/B-13.5 @ 6.5' bgs*	B37-GS-129-7' 4/1/97 A/B-14.5 @ 7.0' bgs*	B37-GS-130-9' 4/1/97 A/B-15.5 @ 9' bgs*	B37-GS-131-9' 4/1/97 A/B-16.5 @ 9.0' bgs*		
Analyte	EPA Method					
TRPH (mg/kg)	418.1	<8.0	<8.0	<8.0	<8.0	<8.0
Title 22 Metals (mg/kg)						
Antimony	6010	<5.0	<5.0	<5.0	<5.0	<5.0
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	<1.0
Barium	6010	130	97	93	140	140
Beryllium	6010	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium	6010	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (VI)	7196	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (total)	6010	34	44	41	36	32
Cobalt	6010	6.4	12	11	14	7.9
Copper	6010	16	16	17	17	17
Lead (total)	6010	<1.0	<1.0	<1.0	<1.0	<1.0
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	6010	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	6010	9.8	14	13	17	19
Selenium	6010	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	6010	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	6010	<5.0	<5.0	<5.0	<5.0	<5.0
Vanadium	6010	32	35	40	39	28
Zinc	6010	54	81	64	89	90
VOCs (mg/kg)	8260	ND	ND	ND	ND	ND
SVOCs (1) (mg/kg)						
bis (2-Ethylhexyl)Phthalate	8270	<0.100	<0.100	<0.100	<0.100	<0.100
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--
PCBs (1) (mg/kg)						
PCB-1260	8080	--	--	--	--	--

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected  
 sim dist = simulated distillation  
 VOCs = Volatile Organic Compounds  
 SVOCs = Semi-volatile Organic Compounds  
 PCBs = Polychlorinated biphenyls  
 (1) SVOCs and PCBs not listed were not detected  
 TTL = California Total Threshold Limit Concentration  
 10X STL = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
**Page 4 of 8**

Sample Number, Collection Date, Grid Location and Depth						
Analyte	EPA Method	B37-GS-134-5.5' 4/16/97 A/A.1-4.5 @ 5.5' bgs	B37-GS-135-5.5' 4/16/97 A/A.1-7.5 @ 5.5' bgs	B37-GS-136-6' 4/18/97 A.3/A.4-1.5 @ 6.0' bgs	B37-GS-137-6' 4/18/97 A.4/A.5-1.5 @ 6.0' bgs	B37-GS-137A-6' 5/5/97 A.4/A.5-1.5 @ 6.0' bgs
TRPH (mg/kg)	418.1	<8.0	<8.0	<8.0	<8.0	--
Title 22 Metals (mg/kg)						
Antimony	6010	<5.0	<5.0	<5.0	<5.0	--
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	--
Barium	6010	180	120	120	120	--
Beryllium	6010	<0.1	<0.1	<0.1	<0.1	--
Cadmium	6010	<0.1	<0.1	<0.1	<0.1	--
Chromium (VI)	7196	<0.5	<0.5	<0.5	<0.5	--
Chromium (total)	6010	34	26	22	33	--
Cobalt	6010	4.9	4.1	8.0	6.4	--
Copper	6010	11	8.8	9.0	13	--
Lead (total)	6010	<1.0	<1.0	<1.0	<1.0	--
Mercury	7471	<0.01	<0.01	<0.01	<0.01	--
Molybdenum	6010	<0.5	<0.5	<0.5	<0.5	--
Nickel	6010	9.0	7.1	7.6	9.2	--
Selenium	6010	<1.0	<1.0	<1.0	<1.0	--
Silver	6010	<0.1	<0.1	<0.1	<0.1	--
Thallium	6010	<5.0	<5.0	<5.0	<5.0	--
Vanadium	6010	30	26	21	31	--
Zinc	6010	56	45	53	65	--
VOCs (mg/kg)						
	8260	ND	ND	ND	ND	--
SVOCs (l) (mg/kg)						
bis (2-Ethylhexyl)Phthalate	8270	<0.100	<0.100	<0.100	0.420	--
Carbon Chain Range (mg/kg)						
	sim. dist.	--	--	--	--	--
PCBs (l) (mg/kg)						
PCB-1260	8080	--	--	--	--	Trace
mp/kg = milligrams per kilogram mg/L = milligrams per liter -- = not analyzed bgs = below ground surface ND = not detected (1) SVOCs and PCBs not listed were not detected TTLc = California Total Threshold Limit Concentration 10X STLc = Ten Times the California Soluble Threshold Limit Concentration TRPH = Total Recoverable Petroleum Hydrocarbons						

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected

sim. dist. = simulated distillation  
 VOCs = Volatile Organic Compounds  
 SVOCs = Semi-volatile Organic Compounds  
 PCBs = Polychlorinated biphenyls

(1) SVOCs and PCBs not listed were not detected  
 TTLc = California Total Threshold Limit Concentration  
 10X STLc = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
**Page 5 of 8**

Sample Number, Collection Date, Grid Location and Depth						
B37-GS-138-6' 4/18/97	B37-GS-139-6' 4/18/97	B37-GS-140-6' 4/18/97	B37-GS-141-6' 4/18/97	B37-GS-142-6' 4/21/97		
A.5/A.6-1.5 @ 6.0' bgs	A.6/A.7-1.5 @ 6.0' bgs	A.7/A.8-1.5 @ 6.0' bgs	A.8/A.9-2.5 @ 6.0' bgs	A.3/A.4-2.5 @ 6.0' bgs		
Analyte	EPA Method					
TRPH (mg/kg)	418.1	<8.0	<8.0	<8.0	<8.0	Regulatory Levels TTLc (mg/kg) 10X STLC (mg/L)
Title 22 Metals (mg/kg)						
Antimony	6010	<5.0	<5.0	<5.0	<5.0	500 150
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	500 50
Barium	6010	140	110	110	110	10,000 1,000
Beryllium	6010	<0.1	<0.1	<0.1	<0.1	7.5 7.5
Cadmium	6010	<0.1	<0.1	<0.1	<0.1	100 10
Chromium (VI)	7196	<0.5	<0.5	<0.5	<0.5	500 50
Chromium (total)	6010	32	23	26	22	2,500 50
Cobalt	6010	7.3	7.9	7.8	8.1	8,000 800
Copper	6010	9.9	7.0	9.4	9.4	2,500 250
Lead (total)	6010	<1.0	<1.0	<1.0	<1.0	1,000 50
Mercury	7471	<0.01	<0.01	<0.01	<0.01	20 2
Molybdenum	6010	<0.5	<0.5	<0.5	<0.5	3,500 3,500
Nickel	6010	9.0	7.5	9.3	8.7	2,000 200
Selenium	6010	<1.0	<1.0	<1.0	<1.0	100 10
Silver	6010	<0.1	<0.1	<0.1	<0.1	500 50
Thallium	6010	<5.0	<5.0	<5.0	<5.0	700 70
Vanadium	6010	29	23	24	24	2,400 240
Zinc	6010	81	55	64	60	5,000 2,500
VOCs (mg/kg)	8260	ND	ND	ND	ND	
SVOCs (l) (mg/kg)						
bis (2-Ethylhexyl)Phthalate	8270	<0.100	<0.100	<0.100	<0.100	--
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--
PCBs (l) (mg/kg)						
PCB-1260	8080	--	--	--	--	--

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected  
 (1) SVOCs and PCBs not listed were not detected  
 TTL = California Total Threshold Limit Concentration  
 10X STL = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
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Sample Number, Collection Date, Grid Location and Depth						
B37-GS-143-6'	B37-GS-144-6'	B37-GS-145-6'	B37-GS-146-6'	B37-GS-145A-6'	B37-GS-146-6'	
4/21/97	4/21/97	4/21/97	4/21/97	5/5/97	4/21/97	
A.3/A.4-3.5 @ 6.0' bgs	A.3/A.4-4.5 @ 6.0' bgs	A.3/A.4-5.5 @ 6.0' bgs	A.3/A.4-5.5 @ 6.0' bgs	A.3/A.4-5.5 @ 6.0' bgs	A.3/A.4-6.5 @ 6.0' bgs	
Analyte	EPA Method					
TRPH (mg/kg)	418.1	<8.0	<8.0	12	--	<8.0
Title 22 Metals (mg/kg)						
Antimony	6010	<5.0	<5.0	<5.0	--	<5.0
Arsenic	6010	<1.0	<1.0	<1.0	--	<1.0
Barium	6010	120	130	130	--	120
Beryllium	6010	<0.1	<0.1	<0.1	--	<0.1
Cadmium	6010	<0.1	<0.1	<0.1	--	<0.1
Chromium (VI)	7196	<0.5	<0.5	<0.5	--	<0.5
Chromium (total)	6010	26	26	28	--	34
Cobalt	6010	9.4	10	6.1	--	4.5
Copper	6010	12	12	12	--	14
Lead (total)	6010	<1.0	<1.0	<1.0	--	<1.0
Mercury	7471	<0.01	<0.01	<0.01	--	<0.01
Molybdenum	6010	<0.5	<0.5	<0.5	--	<0.5
Nickel	6010	6.9	8.5	8.2	--	9.4
Selenium	6010	<1.0	<1.0	<1.0	--	<1.0
Silver	6010	<0.1	<0.1	<0.1	--	<0.1
Thallium	6010	<5.0	<5.0	<5.0	--	<5.0
Vanadium	6010	28	24	23	--	28
Zinc	6010	43	51	51	--	53
VOCs (mg/kg)	8260	ND	--	ND	--	--
SVOCs (1) (mg/kg)						
bis (2-Ethylhexyl)Phthalate	8270	0.380	--	0.250	--	--
Carbon Chain Range (mg/kg)						
sim. dist.		--	--	--	--	--
PCBs (1) (mg/kg)						
PCB-1260	8080	--	--	--	ND	--
(1) SVOCs and PCBs not listed were not detected						
TTLc = California Total Threshold Limit Concentration						
10X STLc = Ten Times the California Soluble Threshold Limit Concentration						
TRPH = Total Recoverable Petroleum Hydrocarbons						
mg/kg = milligrams per kilogram	sim. dist. = simulated distillation					
mg/L = milligrams per liter	VOCs = Volatile Organic Compounds					
-- = not analyzed	SVOCs = Semi-volatile Organic Compounds					
bgs = below ground surface	PCBs = Polychlorinated biphenyls					
ND = not detected						

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected  
 (1) SVOCs and PCBs not listed were not detected  
 TTL = California Total Threshold Limit Concentration  
 10X STL = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
**Page 7 of 8**

Analyte		Sample Number, Collection Date, Grid Location and Depth						Regulatory Levels	
		B37-GS-147-4' 4/21/97	B37-GS-148-6' 4/21/97	B37-GS-149-5.5' 4/21/97	B37-GS-150-5.5' 4/21/97	B37-GS-151-5.5' 4/21/97	TTL C (mg/kg)		
EPA Method	418.1	<8.0	<8.0	<8.0	<8.0	<8.0	500	150	
Title 22 Metals (mg/kg)									
Antimony	6010	<5.0	<5.0	<5.0	<5.0	<5.0	500	50	
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	<1.0	500	50	
Barium	6010	100	100	110	68	100	10,000	1,000	
Beryllium	6010	<0.1	<0.1	<0.1	<0.1	<0.1	75	7.5	
Cadmium	6010	<0.1	<0.1	<0.1	<0.1	<0.1	100	10	
Chromium (VI)	7196	<0.5	<0.5	<0.5	<0.5	<0.5	500	50	
Chromium (total)	6010	21	21	25	21	24	2,500	50	
Cobalt	6010	8.7	7.3	7.1	8.6	6.7	8,000	800	
Copper	6010	9.5	14	12	16	13	2,500	250	
Lead (total)	6010	<1.0	<1.0	<1.0	<1.0	<1.0	1,000	50	
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	2	
Molybdenum	6010	<0.5	<0.5	<0.5	<0.5	<0.5	3,500	3,500	
Nickel	6010	7.0	7.7	8.5	7.6	8.1	2,000	200	
Selenium	6010	<1.0	<1.0	<1.0	<1.0	<1.0	100	10	
Silver	6010	<0.1	<0.1	<0.1	<0.1	<0.1	500	50	
Thallium	6010	<5.0	<5.0	<5.0	<5.0	<5.0	700	70	
Vanadium	6010	19	19	23	18	22	2,400	240	
Zinc	6010	41	47	47	43	52	5,000	2,500	
VOCs (mg/kg)									
8260	ND	--	ND	ND	--	ND	ND		
SVOCs (1) (mg/kg)									
bis (2-Ethylhexyl)Phthalate	8270	<0.100	--	<0.100	--	0.140			
Carbon Chain Range (mg/kg)									
sim. dist.	sim. dist.	--	--	--	--	--			
PCBs (1) (mg/kg)									
PCB-1260	8080	--	--	--	--	--			

mg/kg = milligrams per kilogram  
 mg/L = milligrams per liter  
 -- = not analyzed  
 bgs = below ground surface  
 ND = not detected

sim. dist. = simulated distillation  
 VOCs = Volatile Organic Compounds  
 SVOCs = Semi-volatile Organic Compounds  
 PCBs = Polychlorinated biphenyls

(1) SVOCs and PCBs not listed were not detected  
 TTL C = California Total Threshold Limit Concentration  
 10X STL C = Ten Times the California Soluble Threshold Limit Concentration  
 TRPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations



**TABLE 3**  
**Analytical Data Summary**  
**Remedial Excavation B37-RE-4 Confirmation Samples**  
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Sample Number, Collection Date, Grid Location and Depth					
B37-GS-152-5.5'		4/21/97		B37-GS-153-5.5'	
A/A.1-8.5 @ 5.5' bgs		A/A.1-9.5 @ 5.5' bgs		A/A.1-9.5 @ 5.5' bgs	
Analyte	EPA Method			Regulatory Levels	
TRPH (mg/kg)	418.1	<8.0		TTLc (mg/kg)	10X STLc (mg/L)
Title 22 Metals (mg/kg)					
Antimony	6010	<5.0		<5.0	150
Arsenic	6010	<1.0		<1.0	50
Barium	6010	79		82	10,000
Beryllium	6010	<0.1		<0.1	7.5
Cadmium	6010	<0.1		<0.1	10
Chromium (VI)	7196	<0.5		<0.5	50
Chromium (total)	6010	26		16	50
Cobalt	6010	6.7		3.0	800
Copper	6010	13		6.0	250
Lead (total)	6010	<1.0		<1.0	50
Mercury	7471	<0.01		<0.01	2
Molybdenum	6010	<0.5		<0.5	3,500
Nickel	6010	7.8		3.4	2,000
Selenium	6010	<1.0		<1.0	10
Silver	6010	<0.1		<0.1	50
Thallium	6010	<5.0		<5.0	70
Vanadium	6010	31		19	240
Zinc	6010	53		18	2,500
VOCs (mg/kg)					
	8260	--		ND	
SVOCs (1) (mg/kg)					
bis (2-Ethylhexyl)Phthalate	8270	--		<0.100	
Carbon Chain Range (mg/kg)					
	sim. dist.	--		--	
PCBs (1) (mg/kg)					
PCB-1260	8080	--		--	

mg/kg = milligrams per kilogram  
mg/L = milligrams per liter  
bgs = below ground surface  
ND = not detected

sim. dist. = simulated distillation  
VOCs = Volatile Organic Compounds  
SVOCs = Semi-volatile Organic Compounds  
PCBs = Polychlorinated biphenyls

(1) SVOCs and PCBs not listed were not detected  
TTLc = California Total Threshold Limit Concentration  
10X STLc = Ten Times the California Soluble Threshold Limit Concentration  
TRPH = Total Recoverable Petroleum Hydrocarbons

mg/kg = milligrams per kilogram  
mg/L = milligrams per liter  
-- = not analyzed  
bgs = below ground surface  
ND = not detected

sim. dist. = simulated distillation  
VOCs = Volatile Organic Compounds  
SVOCs = Semi-volatile Organic Compounds  
PCBs = Polychlorinated biphenyls

(1) SVOCs and PCBs not listed were not detected  
TTLC = California Total Threshold Limit Concentration  
10X STLC = Ten Times the California Soluble Threshold Limit Concentration  
TAPH = Total Recoverable Petroleum Hydrocarbons

\* Refer to Figure 5 for sample locations

**TABLE 4**  
**Draft Health-Based Screening Criteria (HBSC)**  
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Compounds	Const. Worker Exposure Scenario (mg/kg)	Com/Ind Worker Exposure Scenario (mg/kg)	Proposed HBSC (mg/kg)
1,1,1,2-tetrachloroethane	4.19E+02	2.40E+03	4.19E+02
1,1,2,2-tetrachloroethane	5.29E+01	2.50E+02	5.29E+01
1,1,2-trichloroethane	1.56E+02	1.59E+02	1.56E+02
1,1-dichloroethane	1.06E+03	1.88E+02	1.88E+02
1,1-dichloroethene	1.58E+00	6.82E-02	6.82E-02
1,2,3-trichloropropane	1.97E+00	NA	1.97E+00
1,2,4-trichlorobenzene	1.74E+02	7.91E+06	1.74E+02
1,2-dibromo-3-chloropropane	2.09E+00	1.25E+01	2.09E+00
1,2-dibromoethane	4.71E+00	4.08E+01	4.71E+00
1,2-dichlorobenzene	NA	1.00E+06	1.00E+06
1,2-dichloroethane	1.14E+02	3.76E+01	3.76E+01
1,2-dichloropropane	6.74E+00	1.21E+00	1.21E+00
1,2-diphenylhydrazine	2.03E+01	3.93E+07	2.03E+01
1,3-dichloropropene	3.69E+01	1.11E+02	3.69E+01
1,4-dichlorobenzene	3.97E+02	7.30E+03	3.97E+02
2,4,5-trichlorophenol	1.70E+04	NA	1.70E+04
2,4,6-trichlorophenol	2.51E+02	1.84E+06	2.51E+02
2,4-dichlorophenol	5.15E+01	NA	5.15E+01
2,4-dimethylphenol	3.46E+03	NA	3.46E+03
2,4-dinitrophenol	1.98E+00	NA	1.98E+00
2,4-dinitrotoluene	3.48E+01	1.27E+06	3.48E+01
2,6-dinitrotoluene	2.58E+01	NA	2.58E+01
2-butanone	2.66E+04	3.92E+05	2.66E+04
2-chlorophenol	8.04E+02	NA	8.04E+02
2-methylphenol	8.44E+03	NA	8.44E+03
2-naphthylamine	9.79E+00	2.72E+05	9.79E+00
3,3-dichlorobenzidine	1.47E+01	1.25E+08	1.47E+01
4,4-ddd	1.03E+02	1.67E+08	1.03E+02
4,4-dde	7.24E+01	4.72E+05	7.24E+01
4,4-ddt	1.22E+01	3.78E+07	1.22E+01
4-chloroaniline	6.76E+01	NA	6.76E+01
4-methyl-2-pentanone	7.68E+03	1.14E+05	7.68E+03
4-methylphenol	8.59E+01	NA	8.59E+01
acenaphthene	7.98E+03	NA	7.98E+03
acetone	1.74E+04	NA	1.74E+04

**TABLE 4**  
**Draft Health-Based Screening Criteria (HBSC)**  
**(Page 2 of 4)**

Compounds	Const. Worker Exposure Scenario (mg/kg)	Com/Ind Worker Exposure Scenario (mg/kg)	Proposed HBSC (mg/kg)
aldrin	7.33E-01	4.50E+03	7.33E-01
alpha-bhc	3.91E+00	3.87E+04	3.91E+00
aniline	7.38E+02	1.70E+06	7.38E+02
anthracene	4.06E+03	NA	4.06E+03
antimony	9.05E+00	NA	9.05E+00
aroclor 1254	8.72E-01	NA	8.72E-01
arsenic	8.87E+00	NA	8.87E+00
barium	2.52E+03	NA	2.52E+03
benzene	7.87E+01	2.50E+01	2.50E+01
benzidine	3.47E-02	2.58E+01	3.47E-02
benzo(a)anthracene	1.14E+01	3.32E+08	1.14E+01
benzo(a)pyrene	1.14E+00	1.60E+07	1.14E+00
benzo(b)fluoranthene	1.14E+01	5.35E+07	1.14E+01
benzo(k)fluoranthene	1.14E+01	1.60E+07	1.14E+01
benzoic acid	6.97E+04	NA	6.97E+04
benzyl alcohol	1.74E+04	NA	1.74E+04
benzyl chloride	8.79E+01	6.72E+02	8.79E+01
beryllium**	1.82E+02	NA	1.82E+02
beta-bhc	1.37E+01	1.65E+06	1.37E+01
beta-chloronaphthalene***	NA	3.92E+06	3.92E+06
bis(2-chloro-1-methylethyl)ether	2.35E+02	4.88E+03	2.35E+02
bis(2-chloroethyl)ether	6.34E+00	1.15E+02	6.34E+00
bis(2-ethylhexyl)phthalate	2.10E+03	1.31E+10	2.10E+03
bromodichloromethane	1.45E+01	NA	1.45E+01
bromoform	3.49E+02	1.32E+04	3.49E+02
bromomethane	NA	1.92E+01	1.92E+01
cadmium**	1.64E+01	NA	1.64E+01
carbon disulfide	8.27E+02	1.17E+04	8.27E+02
carbon tetrachloride	6.18E+01	3.12E+01	3.12E+01
chlorobenzene	NA	1.08E+04	1.08E+04
chloroform	1.85E+02	1.35E+02	1.35E+02
chloromethane	2.64E+02	1.23E+01	1.23E+01
chromium iii	3.22E+04	NA	3.22E+04
chromium vi	9.73E+01	NA	9.73E+01
chrysene	1.14E+02	2.32E+09	1.14E+02

**TABLE 4**  
**Draft Health-Based Screening Criteria (HBSC)**  
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Compounds	Const. Worker Exposure Scenario (mg/kg)	Com/Ind Worker Exposure Scenario (mg/kg)	Proposed HBSC (mg/kg)
cis-1,2-dichloroethene	1.74E+03	NA	1.74E+03
copper	1.26E+03	NA	1.26E+03
cumene	1.34E+03	9.56E+03	1.34E+03
dibenzo(a,h)anthracene	3.35E+00	1.06E+11	3.35E+00
dibromochloromethane	1.02E+02	5.63E+01	5.63E+01
dichlorodifluoromethane	4.80E+02	1.17E+02	1.17E+02
dieldrin	1.22E+00	3.87E+03	1.22E+00
diethyl phthalate	1.39E+05	NA	1.39E+05
di-n-butylphthalate	1.74E+04	NA	1.74E+04
di-n-octylphthalate	3.49E+02	NA	3.49E+02
endosulfan	1.47E+02	NA	1.47E+02
endrin	7.33E+00	NA	7.33E+00
ethyl chloride	2.84E+04	2.61E+05	2.84E+04
ethylbenzene	NA	1.56E+05	1.56E+05
fluoranthene	6.97E+03	NA	6.97E+03
fluorene	6.97E+03	NA	6.97E+03
gamma-bhc	2.30E+01	4.39E+04	2.30E+01
heptachlor	2.77E+00	2.97E+02	2.77E+00
heptachlor epoxide	3.18E-01	2.25E+02	3.18E-01
hexachlorobenzene	9.20E+00	4.66E+02	9.20E+00
hexachlorobutadiene	2.13E+02	1.19E+04	2.13E+02
hexachlorocyclopentadiene	1.88E+01	1.63E+02	1.88E+01
hexachloroethane	1.74E+02	4.00E+04	1.74E+02
indeno(1,2,3-cd)pyrene	1.47E+01	2.05E+10	1.47E+01
isophorone	1.81E+04	NA	1.81E+04
mercury	6.78E+00	NA	6.78E+00
methylene chloride	8.31E+02	2.20E+02	2.20E+02
molybdenum	1.24E+03	NA	1.24E+03
n-butylbenzyl phthalate	3.49E+03	NA	3.49E+03
nickel	3.70E+02	NA	3.70E+02
nitroaniline, o-	1.62E+03	4.08E+05	1.62E+03
nitrobenzene	8.20E+01	2.97E+04	8.20E+01
nitrosodiphenylamine, p-	7.95E+02	1.72E+06	7.95E+02
n-nitrosodimethylamine	1.10E+00	NA	1.10E+00
n-nitroso-di-n-propylamine	2.33E+00	7.44E+01	2.33E+00

**TABLE 4**  
**Draft Health-Based Screening Criteria (HBSC)**  
**(Page 4 of 4)**

Compounds	Const. Worker Exposure Scenario (mg/kg)	Com/Ind Worker Exposure Scenario (mg/kg)	Proposed HBSC (mg/kg)
n-nitrosodiphenylamine	1.94E+03	4.20E+06	1.94E+03
o-chlorotoluene	3.49E+03	NA	3.49E+03
pentachlorophenol	3.05E+02	2.17E+09	3.05E+02
phenol	1.05E+04	NA	1.05E+04
pyrene	2.35E+03	NA	2.35E+03
selenium	1.77E+02	NA	1.77E+02
silver	5.98E+01	NA	5.98E+01
styrene	6.03E+04	1.26E+06	6.03E+04
tetrachloroethene	2.48E+02	8.20E+01	8.20E+01
toluene	3.70E+04	3.71E+04	3.70E+04
trans-1,2-dichloroethene	3.49E+03	NA	3.49E+03
trichloroethene	7.08E+02	3.41E+02	3.41E+02
trichlorofluoromethane	6.27E+03	8.16E+03	6.27E+03
vanadium	8.37E+01	NA	8.37E+01
vinyl acetate	1.44E+03	3.86E+04	1.44E+03
vinyl chloride	3.13E-01	8.05E-03	8.05E-03
xylene***	2.16E+04	1.35E+06	2.16E+04
zinc	8.26E+03	NA	8.26E+03

Notes:

- NA The required toxicity factors (subchronic - const. or inhalation - C/I) under the applicable exposure scenario were unavailable
- \* All HBSC are base on a hazard quotient of 0.2 and an incremental lifetime cancer risk of  $1 \times 10^{-6}$
- \*\* No oral cancer potency factor was used for these compounds based on conversations with Jim Collins at Air Toxicology and Epidemiology Section (ATES), Office of Environmental Health Hazard Assessment (OEHHA), April 30, 1997
- \*\*\* Due to the lack of toxicity data, chronic oral toxicity factors were used as inhalation toxicity factors for the purposes of deriving acceptable HBSC values